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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,123	03/14/2002	Andrea Casini	018765-9001	1043

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EXAMINER

CHO, UN C

ART UNIT	PAPER NUMBER
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2687

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/088,123	CASINI ET AL.	
	Examiner	Art Unit	
	Un C Cho	2687	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20 June 2002</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 3 and 4. See MPEP § 608.01(n). Accordingly, the claims 5 – 19 are not been further treated on the merits.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Koonen (US 6,674,966).

Regarding claim 1, Koonen discloses a communications network, in particular for telephony characterized in that it comprises at least one operator (base station controller, Fig. 5, 14), a plurality of remote units (Optical Network Units, ONU, Fig. 5, 72a – 72n) designed to exchange signals with the operator and to exchange radio frequency signals with mobile terminals, an interface unit inserted between the operator and the remote units (Flexible Wavelength Router, Fig. 5, 73 inserted between the base station controller and the ONU), the

interface unit having at least one input for receiving signals from the remote units and at least one output for sending signals to the remote units (Fig. 5, 76a – 76n), the interface unit also being designed to exchange signals with the operator (Fig. 5, 16), a first transmission support being designed to support a main signal (Fig. 5, 76a), the first transmission support having a first end connected to the interface unit input and at least a second end connected to the interface unit output (the), the main signal consisting of a plurality of secondary signals, each identified by a preset parameter value (wavelength value), each of the remote units being designed to process a secondary signal intended for it (each ONU receives its respective wavelength), each of the remote units being able to select at least one secondary signal intended for it according to the preset parameter value (Koonen, Col. 6, line 36 through Col. 7, line 26).

Regarding claim 2, Koonen discloses that the preset parameter is a wavelength, the remote units sending to and receiving from the interface unit signals at the wavelength associated with them (Koonen, Col. 7, lines 6 – 15).

Regarding claim 3/1, Koonen discloses that the secondary signals received from and sent to the interface unit by the remote units are bundled and preferably multiplexed by the interface unit according to the dense wave multiplexed by the interface unit according to the dense wave division multiplexing technique, in particular according to the semi-dense wave division multiplexing technique (the specific example given by Koonen is $N=4$ however,

the optical fiber can carry a number of wavelengths ($N > 4$), thus, utilizing the dense wave division multiplexing technique, Col. 7, lines 6 – 15).

Regarding claim 3/2, the claim is interpreted and rejected for the same reason as set forth in claim 3/1.

Regarding claim 4/1, Koonen discloses that the first transmission support comprises an optic fiber support (optical fiber, Fig. 5, 16), the main signal being an optical signal propagating from the second end to the first end (Col. 7, lines 27 – 67).

Regarding claim 4/2, the claim is interpreted and rejected for the same reason as set forth in claim 4/1.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ariyavisitakul et al. (US 5,936,754) discloses a transmission system for backhauling CDMA signals from remote antennas to be centralized base station of a wireless communication system.

DeMarco (US 6,047,199) discloses a system and method for transmitting cellular signals having linear power amplifiers mounted on a cellular tower within a tower circuit.

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Emura (US 5,424,864) discloses a microcellular mobile radio communication system having a central base station and a plurality of radio base stations interconnected by a shared optical fiber transmission line.


Imajo (US 6,337,754) discloses an economic optical conversion relay amplification system avoiding a beat noise in uplink line of an optical transmission line of multibranching and multinode multiplexing type.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Un C Cho whose telephone number is (703) 305-8725. The examiner can normally be reached on M ~ F 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (703) 306-3016. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Un C Cho 11/10/2004 UC
Examiner
Art Unit 2687


11/10/04
LESTER G. KINCAID
PRIMARY EXAMINER